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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,859	01/15/2002	Hardayal Singh Gill	SJO9-2001-0007US1	1622

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INTELLECTUAL PROPERTY LAW OFFICE  
1901 S. BASCOM AVENUE, SUITE 660  
CAMPBELL, CA 95008

EXAMINER

OMETZ, DAVID LOUIS

ART UNIT	PAPER NUMBER
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2653

13

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/051,859

Applicant(s)

GILL, HARDAYAL SINGH

Examiner

David L. Ometz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004 and 16 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,10,18,19,27 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 3-9,11,12,20-26,28,29 and 33-35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/13/04 and attached to paper number 10 has been entered.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 10, 18, 19, 27, 30-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakaguci et al (US Pat 6574080).

As per claims 1, 2, 10, 18, 19, 27, 30-32, Sakaguci et al '080 shows a spin valve MR head in figure 2A that has: a free magnetic layer 4 with a planar upper surface that extends across the central and end regions of the free layer 4; an anti-parallel coupled magnetic layer structure (elements 2001-2005) being directly disposed upon the upper surface of the free layer 4 at the outer end regions thereof wherein there are two anti-parallel coupled magnetic layers 2002/2004 (also, as per claim 31, the seed layer 2001 is placed directly on the end portions of the free layer 4); thin film nonmagnetic layer 2003; and the net biasing magnetic field is in the same direction as the free layer magnetization in order to longitudinally bias the free layer 4 (see col. 7, lines 18-60).

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4. Claims 1, 2, 10, 18, 19, 27, 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakaguci et al (US Pat 6633466).

As per claims 1, 2, 10, 18, 19, 27, 30, Sakaguci et al '466 shows a spin valve MR head in figure 1C that has: a free magnetic layer 4 with a planar upper surface that extends across the central and end regions of the free layer 4; an anti-parallel coupled magnetic layer structure (elements 6-8) being directly disposed upon the upper surface of the free layer 4 at the outer end regions thereof wherein there are two anti-parallel coupled magnetic layers 6, 8; thin film nonmagnetic layer 7; and the net biasing magnetic field is in the same direction as the free layer magnetization in order to longitudinally bias the free layer 4 (see all of col. 5 through line 16 of col. 6).

5. Claims 3-9, 11, 12, 20-26, 28, 29, 33-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 13-17 are allowed.

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ooshima et al shows a spin valve MR head with AP bias layers stacked directly on the free layer.

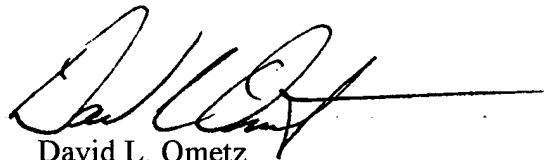
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Ometz whose telephone number is (703) 308-1296.

The examiner can normally be reached on M-W, 6:00-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David L. Ometz  
Primary Examiner  
Art Unit 2653

DLO  
3/31/04